



Box Seq- GAU-1815

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

q/c
B. Denny
1/28/98

In re Application of:

GEERT MAERTENS
LIEVEN STUYVER

Serial No.: 08/836,075

Filing Date: April 21, 1997

For: NEW SEQUENCES OF HEPATITIS C
VIRUS GENOTYPES AND THEIR USE AS
PROPHYLACTIC, THERAPEUTIC AND
DIAGNOSTIC AGENTS

Group Art Unit: 1815

Examiner: M. Zeman

Attorney Docket: INNS004/KAM

RECEIVED

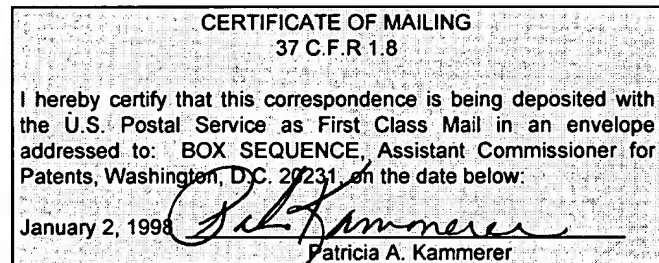
JAN 12 1998

GROUP 1800

STATEMENT AND AMENDMENT AS REQUIRED
UNDER 37 CFR 1.821(f) AND (h)

BOX SEQUENCE

Assistant Commissioner for Patents
Washington, D.C. 20231



Sir:

In response to the Notice to Comply with Requirements for Patent Applications Containing Nucleotide Sequence and/or Amino Acid Sequence Disclosures dated December 4, 1997, applicants supply the enclosed Sequence Listing comprising one (1) computer readable form (diskette) and one hundred and six (106) pages. Also enclosed is a copy of the CRF Diskette Problem Report supplied with the Notice to Comply with Requirements for Patent Applications Containing Nucleotide Sequence and/or Amino Acid Sequence Disclosures dated December 4, 1997. The undersigned

hereby certifies that the diskette and the paper copy of the Sequence Listing submitted herewith are identical to each other. The undersigned further certifies that this sequence listing does not go beyond the disclosure in the International Application as filed.

Amendment to the Specification:

Applicants respectfully request the enclosed paper copy of the Sequence Listing be entered into the specification of the application and made a part thereof.

Respectfully submitted,



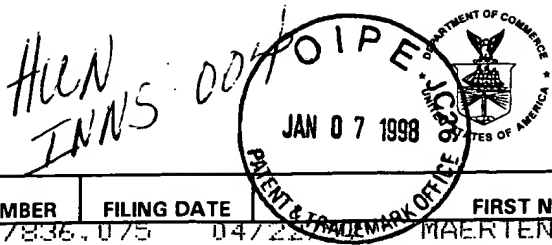
Patricia A. Kammerer

Reg. No. 29,775

ATTORNEY FOR ASSIGNEE,
INNOGENETICS N.V.

ARNOLD, WHITE & DURKEE
P. O. Box 4433
Houston, Texas 77210-4433
(713) 787-1438

January 2, 1998



UNITED STATES DEPARTMENT OF COMMERCE
Patent and Trademark Office
COMMISSIONER OF PATENTS AND TRADEMARKS
Washington, D.C. 20231

SERIAL NUMBER	FILING DATE	FIRST NAMED APPLICANT	ATTORNEY DOCKET NO.
087836, 075	04/22	MAERTENS	INNS: 0047/KAM

PATRICIA A KAMMERER
ARNOLD WHITE & DURKEE
PO BOX 4433
HOUSTON TX 77210-4433

18M1/1204

EXAMINER	
ZEMAN, M	
ART UNIT	PAPER NUMBER
1815	2

DATE MAILED: 12/04/97

RECEIVED

Please find below a communication from the EXAMINER in charge of this application

Commissioner of Patents JAN 12 1998

This application contains sequence disclosures that are encompassed by the definitions for nucleotide and/or amino acid sequences set forth in 37 CFR 1.821(a)(1) and (a)(2). A computer readable form (CRF) of the sequence listing was submitted. However, the CRF could not be processed by the Scientific and Technical Information Center (STIC) for the reason(s) set forth on the attached CRF Diskette Problem Report. GROUP 1800

Any inquiry concerning this communication should be directed to Examiner Mary K Zeman, Art Unit 1815 whose telephone number is (703) 305-7133.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 308-0196.

APPLICANT IS GIVEN ONE MONTH FROM THE DATE OF THIS LETTER WITHIN WHICH TO COMPLY WITH THE SEQUENCE RULES, 37 CFR 1.821 - 1.825. Failure to comply with these requirements will result in ABANDONMENT of the application under 37 CFR 1.821(g). Extensions of time may be obtained by filing a petition accompanied by the extension fee under the provisions of 37 CFR 1.136. In no case may an applicant extend the period for response beyond the six month statutory period. Direct the response to the undersigned. Applicant is requested to return a copy of the attached CRF Diskette Problem Report with the response.

mkz
8/4/97

Comply With Sequence Rules
DOCKETED
FOR 1-4-98
BY Chu
CHKD. BY [Signature]

Marian C Knobe

MARIAN C. KNOBE
SUPERVISORY PATENT EXAMINER
GROUP 1800

REC'D - A.W.D.

DEC 08 1997

DOCKET DEPT

Application No.: 08/836,075

**NOTICE TO COMPLY WITH REQUIREMENTS FOR PATENT APPLICATIONS CONTAINING
NUCLEOTIDE SEQUENCE AND/OR AMINO ACID SEQUENCE DISCLOSURES**

The nucleotide and/or amino acid sequence disclosure contained in this application does not comply with the requirements for such a disclosure as set forth in 37 C.F.R. 1.821 - 1.825 for the following reason(s)

- ☐ 1. This application clearly fails to comply with the requirements of 37 C.F.R. 1.821-1.825. Applicant's attention is directed to these regulations, published at 1114 OG 29, May 15, 1990 and at 55 FR 18230, May 1, 1990.
- ☐ 2. This application does not contain, as a separate part of the disclosure on paper copy, a "Sequence Listing" as required by 37 C.F.R. 1.821(c).
- ☐ 3. A copy of the "Sequence Listing" in computer readable form has not been submitted as required by 37 C.F.R. 1.821(e).
- ☒ 4. A copy of the "Sequence Listing" in computer readable form has been submitted. However, the content of the computer readable form does not comply with the requirements of 37 C.F.R. 1.822 and/or 1.823, as indicated on the attached copy of the marked -up "Raw Sequence Listing."
- ☐ 5. The computer readable form that has been filed with this application has been found to be damaged and/or unreadable as indicated on the attached CRF Diskette Problem Report. A Substitute computer readable form must be submitted as required by 37 C.F.R. 1.825(d).
- ☐ 6. The paper copy of the "Sequence Listing" is not the same as the computer readable form of the "Sequence Listing" as required by 37 C.F.R. 1.821(e).
- ☐ 7. Other: _____

Applicant Must Provide:

- ☒ An initial or substitute computer readable form (CRF) copy of the "Sequence Listing".
- ☒ An initial or substitute paper copy of the "Sequence Listing", as well as an amendment directing its entry into the specification.
- ☒ A statement that the content of the paper and computer readable copies are the same and, where applicable, include no new matter, as required by 37 C.F.R. 1.821(e) or 1.821(f) or 1.821(g) or 1.825(b) or 1.825(d).

For questions regarding compliance to these requirements, please contact:

For Rules Interpretation, call (703) 308-4216

For CRF Submission Help, call (703) 308-4212

For PatentIn software help, call (703) 308-6856

PLEASE RETURN A COPY OF THIS NOTICE WITH YOUR RESPONSE

RAW SEQUENCE LISTING
PATENT APPLICATION US/08/836,075DATE: 10/08/97
TIME: 13:05:11

INPUT SET: S20848.raw

This Raw Listing contains the General
Information Section and those Sequences
containing ERRORS.

Does Not Comply
Corrected Diskette Needed

SEQUENCE LISTING

(1) General Information:

(i) APPLICANT: MAERTENS, GEERT
STUYVER, LIEVEN

(ii) TITLE OF INVENTION: NEW SEQUENCES OF HEPATITIS C VIRUS GENOTYPES
AND THEIR USE AS PROPHYLACTIC, THERAPEUTIC AND DIAGNOSTIC
AGENTS

(iii) NUMBER OF SEQUENCES: 207

(iv) CORRESPONDENCE ADDRESS:

- (A) ADDRESSEE: ARNOLD, WHITE & DURKEE
(B) STREET: P.O. BOX 4433
(C) CITY: HOUSTON
(D) STATE: TEXAS
(E) COUNTRY: USA
(F) ZIP: 77210-4433

(v) COMPUTER READABLE FORM:

- (A) MEDIUM TYPE: Floppy disk
(B) COMPUTER: IBM PC compatible
(C) OPERATING SYSTEM: PC-DOS/MS-DOS
(D) SOFTWARE: Microsoft Word 6.0 / ASCII text output

(vi) CURRENT APPLICATION DATA:

- (A) APPLICATION NUMBER: 08/836,075
(B) FILING DATE: 21 Apr 1997

(vii) PRIOR APPLICATION DATA:

- (A) APPLICATION NUMBER: PCT/EP95/04155
(B) FILING DATE: 23 Oct 1995

(vii) PRIOR APPLICATION DATA:

- (A) APPLICATION NUMBER: EP 94870166.9
(B) FILING DATE: 21 Oct 1994

(viii) PRIOR APPLICATION DATA:

- (A) APPLICATION NUMBER: EP 95870076.7
(B) FILING DATE: 28 Jun 1995

(ix) ATTORNEY/AGENT INFORMATION:

- (A) NAME: KAMMERER, PATRICIA A.

INPUT SET: S20848.raw

46 (B) REGISTRATION NUMBER: 29,775
47 (C) REFERENCE/DOCKET NUMBER: INNS:004
48

ERRORED SEQUENCES FOLLOW:

893 (2) INFORMATION FOR SEQ ID NO: 22:
894
895 1 (i) SEQUENCE CHARACTERISTICS:
--> 896 (A) LENGTH: 48 amino acids
--> 897 (B) TYPE: amino acid
--> 898 *delete* (D) TOPOLOGY: linear
899
900 (ii) MOLECULE TYPE: peptide
901
902
903
--> 904 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 22:
905
906 Met Ser Thr Asn Pro Lys Pro Gln Arg Lys Thr Lys Arg Asn Thr Asn
907 1 5 10 15
908
909 Arg Arg Pro Gln Asp Val Lys Phe Pro Gly Gly Gly Arg Ser Leu Ala
910 20 25 30
911
912 Glu Tyr Thr Cys Ala Arg Arg Gly Lys Leu Arg Arg Ser Ser Met Gly
913 35 40 45
914
915

950 (2) INFORMATION FOR SEQ ID NO: 24:
951
952 (i) SEQUENCE CHARACTERISTICS:
--> 953 (A) LENGTH: 149 amino acids
954 (B) TYPE: amino acid
955 (D) TOPOLOGY: linear *see next page*
956
957 (ii) MOLECULE TYPE: peptide
958
959
960
961 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 24:
962
963 Asp Gly Ile Asn Tyr Ala Thr Gly Asn Leu Pro Gly Cys Ser Phe Ser
964 1 5 10 15
965
966 Ile Phe Leu Leu Ala Leu Leu Ser Cys Leu Thr Val Pro Ala Ser Ala
967 20 25 30
968
969 Val Gln Val Lys Asn Thr Ser His Ser Tyr Met Val Thr Asn Asp Cys

RAW SEQUENCE LISTING PATENT APPLICATION US/08/836,075

DATE: 10/08/97
TIME: 13:05:15

INPUT SET: S20848.raw

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970          35          40          45
971
972      Ser Asn Ser Ser Ile Val Trp Gln Leu Lys Asp Ala Val Leu His Val
973          50          55          60
974
975      Pro Gly Cys Val Pro Cys Glu Arg His Gln Asn Gln Ser Arg Cys Trp
976      65          70          75          80
977
978      Ile Pro Val Thr Pro Asn Val Ala Val Ser Gln Pro Gly Ala Leu Thr
979          85          90          95
980
--> 981      Arg Gly Leu Arg Thr His Ile Asp Thr Ile Val Ala er Ala Thr Val 1
982          100          105          110
983
984      Cys Ser Ala Leu Tyr Val Gly Asp Phe Cys Gly Ala Val Met Leu Val
985          115          120          125
986
987      Ser Gln Phe Phe Met Ile Ser Pro Gln His His Ile Phe Val Gln Asp
988          130          135          140
989
990      Cys Asn Cys Ser Ile
991      145
992

```

1161 (2) INFORMATION FOR SEQ ID NO: 30:

1162

(i) SEQUENCE CHARACTERISTICS:

--> 1164 (A) LENGTH: 149 amino acids
1165 (B) TYPE: amino acid
1166 (D) TOPOLOGY: linear

1167

1168 (ii) MOLECULE TYPE: peptide

1169

1170

1171

1172 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 30:

1173

1174 Asp Gly Ile Asn Phe Ala Thr Gly Asn Leu Pro Gly Cys Ser Phe Ser
1175 1 5 10 15

1176

1177 Ile Phe Leu Leu Ala Leu Leu Ser Cys Leu Thr Val Pro Ala Ser Ala
1178 20 25 30

1179

1180 Ile Asn Tyr Arg Asn Val Ser Gly Ile Tyr Tyr Val Thr Asn Asp Cys
1181 35 40 45

1182

1183 Pro Asn Ser Ser Ile Val Tyr Glu Ala Asp His His Ile Leu His Leu
1184 50 55 60

1185

1186 Pro Gly Cys Val Pro Cys Val Arg Glu Gly Asn Gln Ser Arg Cys Trp
1187 65 70 75 80

1188

1189 Val Ala Leu Thr Pro Thr Val Ala Ala Pro Tyr Ile Gly Ala Pro Leu

See next page

INPUT SET: S20848.raw

1190 85 90 95
1191
1192 Glu Ser Leu Arg Ser His Val Asp Leu Met Val Gly Ala Ala Thr Val
1193 100 105 110
1194
--> 1195 Cys Ser Ala Leu Tyr Ile Gly Asp Xaa Cys Xa Gly Leu Phe Leu Val
1196 115 120 125
1197
1198 Gly Gln Met Phe Ser Phe Arg Pro Arg Arg His Trp Thr Thr Gln Asp
1199 130 135 140
1200
1201 Cys Asn Cys Ser Ile
1202 145
1203

(2) INFORMATION FOR SEQ ID NO: 31:

1204
1205
1206 (i) SEQUENCE CHARACTERISTICS:
--> 1207 (A) LENGTH: 447 base pairs → 448 shown
1208 (B) TYPE: nucleic acid
1209 (C) STRANDEDNESS: single
1210 (D) TOPOLOGY: linear

1211 (ii) MOLECULE TYPE: cDNA

1212 (iii) HYPOTHETICAL: NO

1213 (iii) ANTI-SENSE: NO

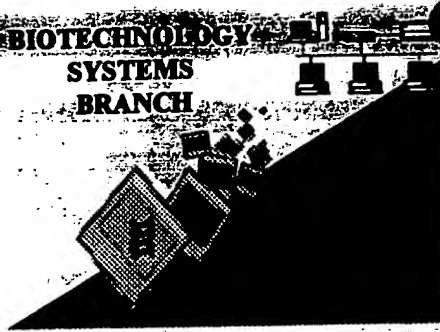
(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 31:

1221
1222 GACGGGATCA ATTATGCAAC AGGGAACCTT CCCGGTTGCT CTTTTTCTAT CTTCTCTTG 60
1223
1224 GCACTCCTCT CGTGCCTGAC TGTTCCCGCT TCGGCCATTA ACTACCGCAA CACCTCGGGC 120
1225
1226 ATCTACCACG TCACCAATGA CTGCCCCGAAC TCGAGCATAG TTTATGAGGC CGACCACCAC 180
1227
1228 ATCTTGCACC TTCCAGGTTG CGTGCCCTGC GTGAGAACTG GGAATCAGTC ACGTTGCTGG 240
1229
1230 GTGGCCCTTA CTCCTACCGT CGCAGCGCCA TACATCGGCG CACCGCTTGA GTCTCTGCGG 300
1231
1232 AGTCATGTGG ATCTGATGGT GGGGGCTGCC ACTGTTTGCT CAGCCCTTTA CATCGGGGAT 360
1233
--> 1234 TTGTGTGGCG GCTTGTCTT GGTGGTCAG ATGTTTCTT TCCGACCACCG ACGCCACTGG 420 421
1235 447 448
1236 ACTGCCCAGG ATTGCAATTG TTCTATC
1237

SEQUENCE VERIFICATION REPORT
PATENT APPLICATION US/08/836,075DATE: 10/08/97
TIME: 13:05:21

INPUT SET: S20848.raw

Line	Error	Original Text
866	Entered (310) and Calc. Seq. Length (0) differ	(A) LENGTH: 310 base pairs
896	Unknown or Misplaced Identifier	(A) LENGTH: 48 amino acids
897	Unknown or Misplaced Identifier	(B) TYPE: amino acid
898	Unknown or Misplaced Identifier	(D) TOPOLOGY: linear
904	Wrong Or Missing Strandedness Value	(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 22:
904	Wrong or Missing Sequence Topology	(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 22:
953	Entered (149) and Calc. Seq. Length (148) differ	(A) LENGTH: 149 amino acids
981	Wrong Amino Acid Designator	Arg Gly Leu Arg Thr His Ile Asp Thr Ile Val Ala er Ala Th
981	Wrong Amino Acid Designator	Arg Gly Leu Arg Thr His Ile Asp Thr Ile Val Ala er Ala Th
1164	Entered (149) and Calc. Seq. Length (148) differ	(A) LENGTH: 149 amino acids
1195	Wrong Amino Acid Designator	Cys Ser Ala Leu Tyr Ile Gly Asp Xaa Cys Xa Gly Leu Phe
1207	Entered (447) and Calc. Seq. Length (448) differ	(A) LENGTH: 447 base pairs
1234	# of Sequences for line conflicts w/ running total	TTGTGTGGCG GCTTGTTCTT GGTTGGTCAG ATGTTT



Notice of Availability of Checker Program

Applicant Aid for Biotechnology Computer Readable Form (CRF) Sequence Listing Submissions

The Patent and Trademark Office (PTO) has developed a computer program, called Checker, that will aid applicants in identifying and correcting errors prior to making submissions for compliance with the Requirements for Patent Applications Containing Nucleotide Sequence and/or Amino Acid Sequence Disclosures (Sequence Rules: 37CFR 1.821 through 1.825). Final rules were published in the *Federal Register* (55 FR18230) on May 1, 1990, and in the PTO *Official Gazette* (1114 Off.Gaz.PatOffice 29) on May 15, 1990.

Checker is a DOS-based software program that is intended to assist users in determining whether errors may be present in the sequence listings, and is not intended to guarantee that the submission is error-free.

The most current version of the software is available via computer downloading, details are below. Copies on diskette are also available. Updated software versions will not be automatically mailed out; any updates will be announced in the PTO *Official Gazette*.

The software can be accessed/requested from the following locations:

- 1) Dial-up access through the Internet. Location is <ftp://ftp.uspto.gov>
The software is in current directory: pub/checker/
Download all the files. Cost: Free-of-charge
- 3) For diskette copies, mail to: U.S.P.T.O., OEIP, CRYSTAL PARK 3, SUITE 441
WASHINGTON DC 20231

COST FOR DISKETTE IS \$ 25.00

METHOD OF PAYMENT:

Check payable to Commissioner of Patents and Trademarks
VISA/ Mastercard/ Charge- Charges can be faxed to 703-306-2737
PTO Deposit Account

For Further Information, Contact: **Arti Shah at 703-308-4212**